Agenda

• Virginia Highway Crash Trends
• Strategic Highway Safety Plan
• Highway Safety Emphasis/Focus Areas
• Highway Safety Projects

Year

2010 2011 2012 2013 2014

Total Crashes

VDOT

Local

Injuries

Year

2010 2011 2012 2013 2014

Injuries

64% 62% 63% 65% 65%
Virginia Highway Deaths & Serious Injuries
2005 - 2014

Deaths

Serious Injuries

SHSP Target
VDOT Maintained Road Crashes 2010-2014

Total Crashes

- Interstate: 23%
- Primary: 41%
- Secondary: 36%

Deaths

- Interstate: 17%
- Primary: 48%
- Secondary: 35%

Severe Injuries

- Interstate: 21%
- Primary: 42%
- Secondary: 37%

ALL Injuries

- Interstate: 20%
- Primary: 44%
- Secondary: 36%
2010 - 2014 Network Comparison

Lane Mileage

- VDOT: 84%
- Local: 16%

DVMT

- VDOT: 82%
- Local: 18%

Crashes

- VDOT: 36%
- Local: 64%

Injuries

- VDOT: 37%
- Local: 62%

Deaths

- VDOT: 19%
- Local: 81%
2010 - 2014 Network Comparison Statewide - Posted Speed Limit

Total Crashes

- 35 or Less: 24%
- 40 or 45: 40%
- 50 or 55: 26%
- Over 55 mph: 14%

Injury Crashes

- 35 or Less: 24%
- 40 or 45: 28%
- 50 or 55: 8%
- Over 55 mph: 4%

Fatal Crashes

- 35 or Less: 42%
- 40 or 45: 20%
- 50 or 55: 24%
- Over 55 mph: 14%
Virginia Highway Crash Types

**Total Crashes (%)**
- Rear End: 33%
- Angle: 19%
- Sideswipe: 25%
- Overturned: 2.6%
- Ped/Bike: 1.4%
- Animal: 8.5%
- Fixed Object Off Road: 5%
- Others: 0.6%

**Fatal Crashes (%)**
- Fixed Object Off Road: 44.8%
- Head On: 16.8%
- Overturned: 11%
- Ped/Bike: 10%
- Angle: 5.8%
- Sideswipe: 5.5%
- Others: 3.1%
Strategic Highway Safety Plan

Vision
*Toward Zero Deaths*

Mission
- *save lives and reduce crashes and injuries*
- *data driven strategic approach*
- *enforcement, education, engineering, and emergency response strategies*

Goal
*reduce deaths & severe injuries by half by 2030*

Target –
*3 percent per year until 2016*

http://www.virginiadot.org/info/hwysafetyplan.asp
Emphasis/Focus Areas

• Roadway Departure Crashes
• Intersection Crashes
• Bicycle and Pedestrian Safety
Roadway Departure Crash Definition

“A non-intersection crash which occurs when a vehicle crosses an edge line or a center line, or otherwise leaves the traveled way.” (Source: FHWA)
Virginia Roadway Departure Deaths
2010 - 2014

Deaths

Roadway Departure Deaths

% of Deaths
Virginia Roadway Departure Crashes 2010-2014

Total Crashes (%)

- Interstate: 30%
- Primary: 20%
- Secondary: 20%
- Local/Urban: 30%

Fatalities (%)

- Interstate: 17%
- Primary: 34%
- Secondary: 32%
- Local/Urban: 17%

Injuries (%)

- Interstate: 26%
- Primary: 32%
- Secondary: 19%
- Local/Urban: 23%
Roadway Departure Prevention

**Curve Delineation**
- $13M investment
- 2600 curves
- 30-50% crash reduction
- Save 18 lives/year
- Save 150 serious injuries/year

**Rumble Strips**
- $18M investment
- 1900 miles treated
- 40-60% crash reduction
- Save 12 lives/year
- Save 400 serious injuries/year
Virginia Intersection Crashes 2010-2014

Total Crashes (%):
- Interstate: 34%
- Primary: 35%
- Secondary: 31%

Fatalities (%):
- Interstate: 15%
- Primary: 57%
- Secondary: 28%

Injuries (%):
- Interstate: 28%
- Primary: 30%
- Secondary: 42%
Effective Intersection Projects

Flashing Yellow Arrow
- $20K/intersection
- 36% crash reduction

Reflective Backplates
- $5-7K/intersection
- 15% all crash reduction
- 28% severe crash reduction

Signal Timing
- $5K/intersection
- 20-33% crash reduction

Steady Red Arrow
Drivers turning left must stop and wait (except where permitted by law).

Steady Yellow Arrow
Stop, if you can do so safely.

Flashing Yellow Arrow
Proceed with left turn after yielding to oncoming traffic and pedestrians.

Steady Green Arrow
Proceed with left turn.
Virginia Pedestrian & Bicyclists Deaths
2010 - 2014

Deaths

% of Total Highway Deaths

2010 2011 2012 2013 2014

Pedestrian & Bicyclists Deaths
% of Deaths
Virginia Pedestrian & Bicycle Crashes 2010-2014

Total Crashes (%):
- Interstate: 67%
- Primary: 14%
- Secondary: 17%
- Local/Urban: 2%

Fatalities (%):
- Interstate: 40%
- Primary: 34%
- Secondary: 17%
- Local/Urban: 9%

Injuries (%):
- Interstate: 68%
- Primary: 14%
- Secondary: 16%
- Local/Urban: 2%
Pedestrian and Bicycle Safety Projects
Deliver Highway Safety Six-Year Plan

Data-Driven Projects Focusing on:

- Roadway Departure crashes
- Intersection crashes
- Bicycle and Pedestrian safety
- Low-cost/high-benefit safety solutions

Curve Delineation
Rumble Strips
Flashing Yellow Arrows
Highway Safety Project Inventory

Active Projects By District*

Bristol: 39
Culpeper: 13
Fredericksburg: 10
Hampton Roads: 15
Lynchburg: 17
Northern VA: 13
Richmond: 24
Salem: 20
Staunton: 10
Statewide: 199
Total: 199

Active Projects By Phase*

PE: 109
Right-of-way: 14
Construction: 76

Project Administration*

VDOT: 61
Local: 138

*Active means in preliminary engineering, right-of-way, or construction phases as of June 17, 2015
Before-and-after Results

Where 113 highway safety-funded projects have been deployed since 2004…

- **Fatal Crashes**: 92%
- **Injury Crashes**: 55%
Questions?

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